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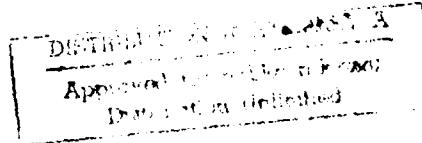
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CAN WE MEET THE CHALLENGE?

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The Rand Corporation
Santa Monica, California 90406

The U.S.-Soviet Strategic Balance in the 1980s: Can We Meet the Challenge?

Kevin N. Lewis

The Rand Corporation, Santa Monica, California*

Since January we have witnessed a major commitment by the Reagan Administration to improve the capabilities of the United States armed forces. We have also seen and taken part in a nation-wide debate on defense requirements, budgets, and strategies. The most conspicuous part of this debate, if not the chief component of the enhanced security effort, has concerned the nuclear forces. One of the most important aspects of the nuclear problem today concerns U.S. nuclear force structure modernization. And here, as in other defense areas, two major trends combine to place a top premium on quick and decisive U.S. action.

On the one hand, the United States today faces requirements to modernize each leg of its strategic Triad. As of this writing, the nature of the follow-on Air Force program awaits a final Reagan administration decision. The range of possible offensive programs for the 1980s, though, includes permutations of the following systems: at least two kinds of ICBMs together with a range of basing systems and deployment concepts; and two types of bombers, a modified B-1 and, further down the road, an Advanced Technology (or "Stealth") bomber.

In addition to these programs, we also will be making decisions on a range of bomber armaments (including cruise missiles and launch

[*] This paper is a revised version of a talk given before the International Forum of the Los Angeles World Affairs Council on 24 June 1981. The author is indebted to Ms. Leslie Dorman of the Council for her hospitality, and to R. Allen and J. Peterson of the Rand Corporation for their comments. Responsibility for all opinions and statements included in this paper is mine.

vehicles), on the future of the aerial tanker force, and on related electronics programs. We are preparing to deploy to Europe the PERSHING II theater nuclear ballistic missile and the Ground Launched Cruise Missile. Navy strategic options include alternative missile-launching subs, more accurate sea-based missiles, and sea-launched cruise missiles. Strategic defense options include an anti-ballistic missile system, expanded air defenses, and a beefed up civil defense program. Furthermore, we can select from a long list of communications, intelligence, and support systems. All in all, the 1980s promise to be a decade of substantial modernization of U.S. strategic forces even if the total scale of effort turns out to be less than projected.

Unfortunately, given the costs of such a package of weapons and the political effort that has been necessary to spark public consensus that modernization on this scale is necessary, the strategic picture continues to be largely one of disarray. Specifically, there seem no generally agreed upon themes for force design, nuclear policy, and arms control. We may agree to move forward with new weapon systems, but there may still be dissent and controversy about the form and scale of the effort. There are even major debates over the nature of those weapon systems, most notably, what the MX missile's basing system should be.

Furthermore, although such deliberations are usually cloaked in secrecy, we have read in the open media about serious disagreements over the way in which nuclear forces should be used. Plans to deploy U.S. nuclear missiles in Europe are meeting serious opposition, and there is no accepted policy governing the future of U.S. arms control policy in

the wake of SALT II's collapse. Indeed, the condition of the entire strategic enterprise does not serve very well to build public confidence.

Against the backdrop of confusion and uncertainty, we face, on the other hand, a consistent, determined, and vigorous Soviet effort to acquire a sophisticated and powerful strategic arsenal. Many Americans today remember with nostalgia the early and mid 1960s, when the United States enjoyed a decisive lead in nuclear capabilities over the USSR, measured in nearly every way. At the time, some observers, including Secretary of Defense McNamara, even thought that the United States lead was so impressive that the USSR might quit in certain of their arms development programs, in effect conceding superiority in the nuclear arms competition to the U.S. This view of Soviet behavior has been discredited. Although remnants of this image of Soviet defense decision-making persist, most people agree that the available evidence suggests a more ominous picture of Soviet strategic intentions.

True, the advantages of nuclear superiority were at the time obscure, as they are today. But the magnitude and directions of the Soviet effort, and the fact that, even with massive U.S. spending, catchup systems will not come on line for five to ten years, have led more than a few commentators to refer to an upcoming period of "Soviet strategic opportunity" or "advantage." Even if this superiority does not translate into some tangible military leverage, the signal danger remains that the Soviets themselves perhaps attribute some salience to nuclear superiority and that a Soviet strategic lead could stalemate the U.S. deterrent force and make possible a greater degree of confidence.



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that the United States would not reply to a Soviet invasion in Europe or in some other theater with nuclear retaliation.

The technical data released so far seem to endorse this revised view of the Soviet threat. The origins of popular interest in the balance coincides with the evaporation of U.S. strategic superiority, as described here. In terms of overall numbers of delivery vehicles, the Soviet arsenal achieved general numerical parity with that of the United States in the early years of the Nixon administration. In qualitative terms the Soviets began to pull abreast in the mid-1970s. The latter development generally marks the origins of widespread interest in the U.S.-Soviet strategic nuclear balance.

To most people, the strategic balance debate is the correct forum for blending discussion of this growing threat and possible responses open to us. I will return to specific weapon programs and other topics later if you like. But for the moment, let me speak about the overall U.S.-Soviet strategic competition, begging your indulgence in advance for some necessary generalizations. I will first describe the context in which the "balance" is defined. Then I will point out one current problem with the balance, and mention what we must do to cure it.

All strategic nuclear force planning functions must serve the higher national objectives for which all military forces--and especially nuclear forces--exist. One centerpiece of declared American nuclear doctrine throughout the entire decade of the 1970s, has been assurance of a strategic balance between U.S. and Soviet forces. Predictably, such an abstract objective is difficult to use as a basis for day to day planning: it enjoys a multitude of interpretations.

Although many people have proposed ways to define and "operationalize" such a concept, nuance aside, when we speak of the matter of "balance" between the strategic nuclear forces of the United States and Soviet Union, we are generally referring to one of two different meanings of the term.

First, we may be interested in the relative ability of the U.S. and USSR to achieve a given set of combat objectives with their nuclear forces. Nuclear weapons can only do one thing, which is to destroy targets they are aimed at or near, and they do it very well. When we talk about war outcomes and the balance in the context of the strategic nuclear debate, therefore, we are basically interested in the implications of each side's ability to destroy or neutralize certain kinds of enemy capabilities.

For example, suppose we considered using nuclear weapons to help conventional forces to defeat a Soviet armored thrust into Western Europe. We could develop nuclear war plans for attacking the resources on which the invasion depended, like bases or rail lines. Or we could try to attack combat forces in the field. After we had developed a candidate weapons laydown, we would then plug the effects of the U.S. attack into our overall assessment of the problem, taking into account possible Soviet countermeasures and reprisals. We would then repeat the process, conducting a mirror image analysis for Soviet forces. Depending on our analytic results, we could then say that U.S. and Soviet capabilities were balanced or out of balance with respect to this particular goal. Note that we still are obliged to pursue national wartime objectives no matter how intense fighting becomes. Even in an all-out

war, then, we would be interested in the distinction between attacks, say, which sought to destroy enemy leadership and the ability of that leadership to maintain police control over the population and attacks on undifferentiated population.

Second, some people think of the concept of balance in more literal terms. In this sense of the word, balance connotes equality, equivalence, or parity in nuclear capabilities, measured in some specially defined way. Here we are interested in achieving and maintaining a state of balance, rather than in just weighing each side's potential. Proponents of this meaning of the term believe that, if both sides possess balanced capabilities, they will be discouraged from unleashing a nuclear attack. The assumption here, of course, is that equivalent nuclear capability translates directly into equivalent political power. Here, simply appearing to be in balance may be enough. For example, many people argue that perceptions of relative U.S.-Soviet strength by allies and others are integral to successful foreign policy, even if the capability being viewed is irrelevant in any practical military sense.

This second view of the balance is the one used most widely in the public forum. This view of balance also has been formalized in United States national strategic policy. An elusive and mysterious concept called "Essential Equivalence" has been considered a prerequisite of deterrence. The doctrine even extends to SALT: both the U.S. and USSR have what amount to national laws that prohibit them from being out of balance in this sense. To support the balance debate, a variety of quantitative methodologies have been devised. As a result, qualitative aspects of the force may be eclipsed in haggling over technical minu-

tiae. For an extreme example, some people think that the larger a missile is, the better it is, which is not unlike saying the heavier a wristwatch is, the better it is.

This interpretation--of "being in balance" rather than thinking from the start about the implications of force capabilities--is popular for several reasons. In this context, the balance is easy to measure, and the indicators used are easy to understand. There also is an understandable emotional appeal to matching certain aspects of each side's arsenal. Because most assessments derive from pretty basic characteristics of the opposing arsenals, this approach is in some ways a useful hedge against uncertainties and risks we face as we study the nuclear war problem.

However, as popular as this approach may be, I do not believe that the prevailing meaning of balance is the best way to look at the nuclear problem. This use of the concept of balance is flawed both on technical and political grounds. First, let me list three of the technical shortcomings of much balance analysis. These shortcomings generally relate to the fact that our methodologies do not paint us a sufficiently rich picture of the military issues at stake.

First, the military objectives of the United States and the USSR are not symmetrical in most cases.

Second, the abilities of the U.S. and USSR, and the threats facing each side are different. Each side has different technical advantages. The Soviets face a different range of threats than the U.S. Each side has different budgetary priorities, and a different economic potential to support research and production. Both sides have alliance problems,

albeit of very different character. And, if there is a private organization in the USSR which is capable of offering the same credible opposition to their Ministry of Defense as, say, the Sierra Club and Mormons have posed the Air Force over MX, I have not heard of them.

Third, "tactical" factors are not readily introduced in balance analysis. The scenarios used in most analyses simplify the problem, but at the expense of reality. The data are uncertain, as are many of the political and other factors that are allowed to intervene. So, we must be very careful about precise analytic results masquerading as facts. We can't conquer uncertainty and unpredictability in this or in any kind of warfare. Even if we could, we cannot predict how the other side will behave.

In sum, most balance assessments portray defense issues in military contexts that are inadequately rich in terms of the full scope of the military problem under consideration. Capabilities are not judged according to their relevance to the sorts of situations in which we might consider bringing military power to bear. A simple example conveys these points succinctly.

Suppose that Red and Blue each have 200 cities. Blue's offensive force consists of 2500 bombers, each carrying two bombs of ten megatons yield each, located on 50 bases. Red's force is made up 400 ICBMs, each with one warhead of five megatons. Clearly the Blue force is superior to the Red force if we look at the balance using common measures. In terms of numbers of vehicles, Blue enjoys a 6.25:1 lead; counting weapons, Blue has a 13.50:1 lead; and in megatonnage, Blue enjoys a 27:1 lead.

It is true that other nations may perceive that Blue is ahead in this competition, and diplomatic advantages may accrue from this. However, once certain political and military factors are introduced into the equation, the situation may look quite different. Suppose that each side intends to deter the other by a threat of destroying the 200 cities. Suppose that each weapon can destroy a city with a probability of 0.9. Then, each side can expend 400 weapons to do the job with 99% confidence. Here, Red has no remaining forces and Blue has several thousand, but all of the other's targets are gone. Hence, Blue gains no advantage as a result of numerical superiority.

But suppose that each side attempts to shoot first at the other's offensive forces and then at cities. Suppose the weapons have a probability of killing the other's bases of 0.75. If Red goes first and targets four ICBMs on each of Blue's fifty bases, he will destroy nearly all of Blue's bombers (if they have not been launched) and still have enough weapons to place one each on all 200 Blue cities. Here despite the fact that Blue leads Red as measured by some indicators, Blue's posture is terribly fragile if Red goes first. The usual standards by which forces are measured are not only inadequate, they may, in the second case for example, be negative. Rather, appropriate military requirements, political objectives, and other assumptions should be introduced into analysis, lest key issues be overlooked.

These are serious charges, but the political failings of most balance debates are worse still. I noted earlier that the simple goal of being in an even balance with the USSR does not satisfactorily treat the issue of what goals we would be pursuing in wartime. In the example

given above, the extra target coverage provided by the larger force is irrelevant if we are only interested in attacking the cities of the other sides. Furthermore, in the bizarre case that Blue was sure it would go first, then the second strike capability (that Red can prevent) does not matter. In short, study of the strategic balance has to be couched in terms of our wartime strategic objectives, which are presumably derived from our highest level statements of national objectives. Only the first meaning of balance is concerned with using the data developed in our technical analyses to see whether we are on track with our programs and our choices, measured in military terms. Whereas, the second use of that concept does not, except by implication, say how certain nuclear capabilities relate to wartime goals. Balance is itself the aim.

Let me now return to this question of wartime objectives. What we should really be interested in as we consider force structure, targeting, and policy decisions, is how the use of nuclear weapons can support our national objectives. But here a basic dilemma afflicts nuclear planning. Our national objectives require us to be able to defeat, by military force, threats to our welfare. This means we must develop theories that explain how nuclear employment can defeat possible challenges. But it also requires that we accomplish the impossible goal of ensuring that this war will remain one-sided, for in the nuclear age, it is the case that we can suffer inestimable damage to our society, even if we were simultaneously winning a war according to traditional definitions of victory.

Putting aside the question of the political unacceptability of surprise attacks (needed to catch the other side's forces at their base) the technical attributes of modern nuclear weapons systems almost guarantee that it would be impossible to disarm one's foe (thereby restoring the nuclear monopoly that briefly existed in the late 1940s), save in the unrealistic scenario in which one side or the other deploys his forces in a completely foolish way.

We have for two decades pursued, as an alternative approach to this dilemma, a strategy of flexible employment which has sought to interpose a period of limited nuclear use during which a war might be brought to an end on acceptable terms. We would do this, it is thought, in one or both of two ways. We might gain some military leverage that would compel the other side to quit fighting. Or, we might, by demonstrating our willingness to escalate to more intense fighting, compel the other side to curb or withdraw its own wartime aims, thereby ending the war on reasonable terms. The strategy of limited employment seems to be the best that we have devised to avoid the total destruction that would accompany less discriminating attacks.

But again, the dilemma looms. Even if we could achieve meaningful goals, and there may be some practical military objectives that we should prepare for, we lack the essential guarantee that we could control for accidents and miscalculations in such a war, or that we could convince the enemy to stop fighting when it is convenient for us.

In short, planning for nuclear defense cannot be done in the same fashion as planning for other kinds of forces. But we are compelled, for the sake of deterrence and for the sake of defense if deterrence

fails, to act as though we could plan. We must therefore develop surrogates for objectives and introduce these as the basis for our nuclear strategy. Unfortunately the record here is a poor one, and for decades admittedly difficult questions have begged resolution. We speak in detailed terms about technical aspects of this macabre war, while key political questions go unanswered. How did we get into this war? What are we trying to do? How can nuclear forces support the theater campaign?

Once they have wrestled with these questions, it is not apparent to many people how we can set out some collection of surrogate rules and principles that state in a useful way what the issues may be in nuclear war. If we desire to sort out this confusion, we must answer two vital questions. The first is, what is he doing to me while I'm attacking him? In the net, am I furthering my progress in the war? For example, imagine a situation in which the U.S. and Soviet Union trade navies with nuclear strikes. Suppose we use fewer weapons and sink more tonnage than we lose. Have we gained anything? I doubt it, given that we are much more dependent on naval forces than he is. Under most circumstances we probably would not want to make that trade.

The second question is as follows. Even supposing that I convince myself that I can get some leg up in a nuclear battle, then how can I make him quit? Even if we disarm the other guy, he may fight on. But a more terrifying aspect of the problem is that in the modern nuclear age, a disarming attack--if such a thing ever did exist--can not be concieved even in principle unless one or both sides devotes itself to such stupendously stupid policies and plans that the technical advantages

offered by our diversified offensive force mix and our warning and intelligence systems are sacrificed. Indeed, for at least fifteen years, the technology and resources have existed--and have been committed--to guarantee that either side will retain the forces needed to launch a devastating "assured destruction" attack against the other, even after absorbing the most brilliantly planned and executed surprise attack.

The consequence of this development is that, even if a war had been kept limited up until a certain point, the other side can always begin to destroy cities. We can return the favor of course. But a city trading exchange would involve such losses that they would eclipse any of the other goals that we had entered into fighting over. No defensive deployments can materially change this fact. Note however that the fact that both sides recognize the consequences of an all-out war is not a perfect guarantee that such a war could not happen. For one thing, there is the potential for error, madness, or miscalculation. For another, we do not want to commit ourselves to either preemptive surrender or inevitable escalation. Finally, it might just happen--though I could not say how--that the enemy could consider this attack justifiable under some circumstances, say as a last gasp effort to defeat the West if it were losing.

The conclusion you might now be drawing is that there is no point to planning for nuclear warfare in a traditional sense, because the routes either to military advantage or to war termination are so obscure. However, it is imperative that we plan nonetheless. Moreover, we must plan as though we believed that we could apply nuclear forces to

gain military leverage, to control escalation, and to compel the other side to quit. This fact, which makes for a painful dilemma, owes its power to a few inescapable realities.

First, we are not only concerned with deterring attacks on U.S. society--we are responsible for the defense of overseas U.S. interests and allies. Second, it is necessary to plan on an operational level so that our forces are organized and ready and thereby can act as a strong deterrent and not as a temptation to action. Third, and most important, although we in this nation may not have developed any sure-fire formulas for nuclear war fighting, there is no evidence that the Soviets are inclined to a similar view. Indeed, both their doctrinal declarations and their day to day actions suggest that the Soviets view nuclear war in a perverse and highly stylized way. If they entertain any aggressive ambitions in this regard, it is imperative that U.S. plans and forces be configured so as to communicate to the USSR our ability and willingness to defeat whatever actions they might contemplate. In sum, while at the highest political levels, decision makers are gored by both horns of this dilemma, practical planning for nuclear force employment must go on.

Because we are obliged to continue to ride the nuclear tiger, we must proceed to plan for a range of missions. We can then go on to test our and their ability to do these missions. This comparison, often expressed numerically, forms the basis of the first approach to measuring the strategic balance.

For our purposes here, we will take missions to refer to different sets of targets that we might want to destroy under given conditions.

Since we have available to us sophisticated damage models and thorough target and force inventories, we can measure precisely each side's potential to accomplish their missions. Most balance analyses use technical surrogates to describe relative force capabilities. Figure One is a typical portrayal of the U.S./USSR balance according to a variety of such indicators. We have measures that describe the ability of each side to destroy soft, area targets (by which we mean factories, cities, or some conventional forces), or hard, point targets, most notably, missile silos.^[1] According to this bewildering portrayal, we might develop the impression that a state of rough nuclear equivalence now exists.

But one serious problem with this resort to simple measurements of damage causing potential is that these indicators do not include the full range of factors that will be crucial in a nuclear fight. For example, it does not make any difference if we have an excellent hard target killing potential if our forces could be wiped out by an enemy first strike. So we should look beyond such displays and think about missions in the context of a full campaign if we desire a high confidence assessment of our force's sufficiency.

That being the case, let's look at a few possible missions and the issue of U.S. sufficiency. Analysts are generally in agreement on

[1] In Figure One, "SNDVs" is the number of SALT-countable strategic nuclear delivery vehicles in the inventory of each side; "weapons" is the number of bombs and warheads carried by this force; "CMP" and "ECMP" are measures of each side's ability to destroy hardened targets like silos; "throwweight" is the amount of payload, in pounds, that is carried by missiles or in bombers; and "EMT," (equivalent megatonnage) is a general index of the amount of area destruction potential of a nuclear arsenal.

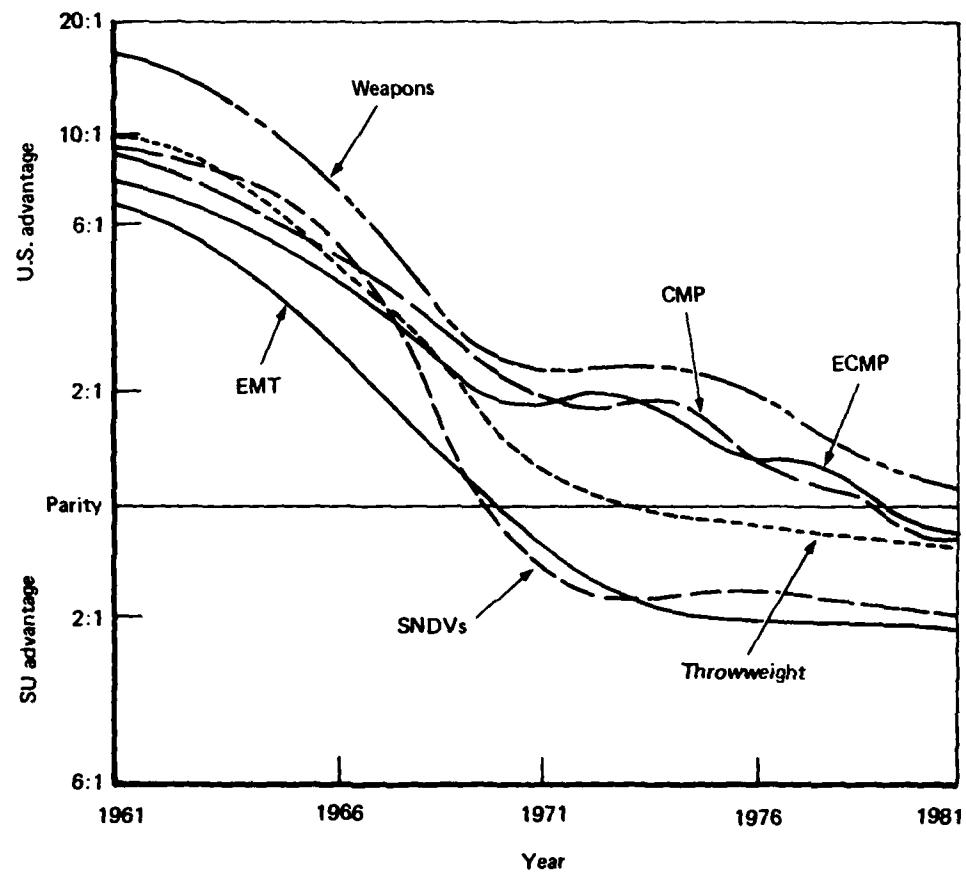


Fig. 1 — The U.S.-USSR strategic balance as viewed through some common aggregate measures (1961-1981)

several points. When we talk about some targets, say those relating to an assured destruction attack, in which the U.S. would really be trying to blast the economic fabric of the USSR, U.S. forces look adequate, even given Soviet improvements and U.S. force aging. If it ever comes time to unleash that attack, there is no doubt that the U.S. could ensure its success.

But we are not so well off in other areas. Now here is where I usually part company with 10 to 100 percent of the audience. Since military considerations, not the apocalyptic character of nuclear war, must be the guide book for practical planners, then we have to think about the range of limited war missions that we could pursue. What is the full menu of missions we might be interested in and what are the war-fighting criteria that we might be trying to satisfy? Two types of generic missions are of interest to us here. First, we might target the general purpose forces of the enemy. Both sides can target fixed installations: we both have enough warheads and they are the right types. But there are special problems in these attacks. Some of these targets move around a lot, they may be near cities or in direct contact with friendly forces, and so on. This is a force employment, not a balance, problem.

The second general type of military targeting problem concerns so-called counterforce targets. In counterforce, each side tries to destroy large slices of the offensive nuclear arms of the other side. Neither can wipe out the other's nuclear forces. But each side can attempt to degrade the enemy's ability to operate effectively in the kind of limited fighting that would, hopefully, still provide some chance of

settling the war without precipitating a holocaust. On the grounds that we might not initiate this fighting, this requirement is tantamount to saying that we must take effective and costly steps to make sure that our hands are not tied in crisis or war. To insure against an imbalance in this mission, we must not, no matter what we feel personally, risk getting in a position in which we cannot respond appropriately.

The counterforce question generally revolves around the land-based missile leg of our strategic Triad. ICBMs, because they can be more tightly commanded and controlled, can get to targets promptly, can be used more flexibly, and are more accurate than other current systems, are essential to the design of an effective deterrent against limited Soviet attacks. If one side can degrade its enemy's ICBMs severely, then that side is at a substantial disadvantage in subsequent action and will be impaired in its ability to deter or defeat subsequent challenges. As you all know, the Soviets have gained the ability to destroy a large number of our MINUTEMAN and TITAN ICBMs, and, unless the Soviets pull their counterforce punch, we may not be able to call upon these, our most effective and flexible limited war weapons, after a Soviet attack on them.

I could now produce some fairly complicated charts that showed the gradual erosion of the MINUTEMAN force. They would reveal two factors. First, the number of Soviet weapons that could effectively attack our hardened missile silos has grown steadily. Soviet accuracies have improved dramatically over a decade; they have placed MIRVed front ends on about 800 of their own ICBMs; and the yield of those weapons has stayed high, even though some of their missiles carry ten such warheads.

Indeed, measured by the standard quantitative measures, we would see that the ability of Soviet ICBMs to damage American ICBMs grew by a factor of about five between roughly 1973 and 1983. At the same time the charts would show that the Soviet targets had become much harder nuts to crack themselves. Indeed, between 1965 and 1983, we would find, if we inspected the technical data available, that the Soviet silo target base will have become an order of magnitude more difficult a target system to attack to equal degrees of effectiveness.

Second, the charts would reveal that the U.S. had at least a decade to correct for these Soviet initiatives. True, we have made a few improvements at the margin. We MIRVed more than half of our ICBMs, doubling the total number of these warheads. We have steadily improved accuracy, although we now seem to have more or less exhausted the potential for further force improvements. We have increased the hardness of our silos somewhat, and we have introduced new, more flexible command and control arrangements for some of these weapons. But the conclusion we would still be forced to draw would be that an adequate response to the Soviet threat, one that involved a new concept for these kinds of forces, has not been introduced in time. The MX concept was first conceived in the mid-1960s; a requirement for it was documented by the Air Force in the early-1970s; and, under that schedule we could have fielded an operational system by now, when it was needed. As it is, MX or some other system may only be operational at the end of this decade, after the Soviet threat has, according to the usual compendium of balance indicators, peaked. This problem of delay, in the face of unambiguous risk, can be found, if not as strikingly, in other components of the

strategic posture. This leads me to my final point, namely what has been the problem in our defense planning that we will have to deal with better in the 1980s.

The chief culprit, if there is one, in the current adverse state of the balance, is our failure to spend at a level sufficient to modernize the forces in response to Soviet developments. Now, this does not bespeak a gross failure by our defense leadership. It reveals a deliberate choice to invest an often decreasing defense budget pie in other places. For example, we have, since the early 1970s, been making significant strides in our conventional forces. In the 1960s and early 1970s, we also had to pay a huge tab for the Viet Nam war. With the money that has been available for strategic forces, furthermore, we have developed some ingenious techniques for getting the most for our dollar. But there is just no way around the fact that when defense spending balances are as unfavorable as they have been, unhappy results are inevitable.

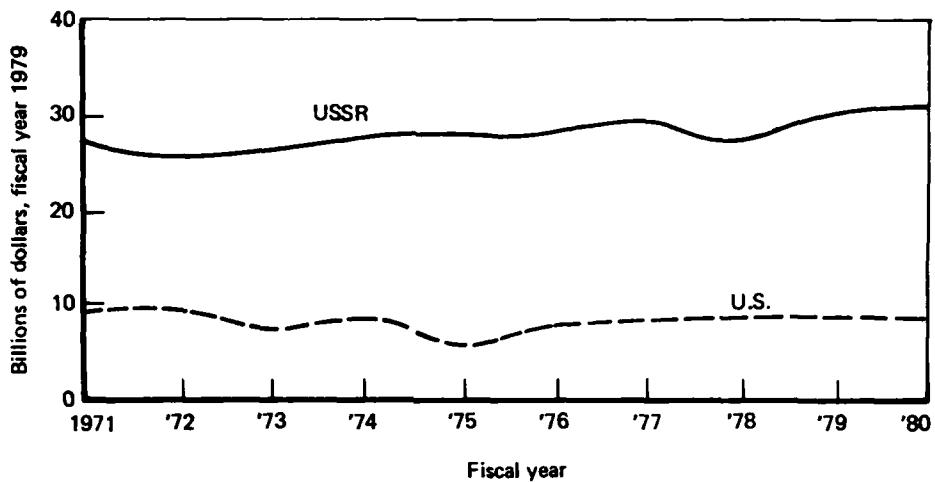
Let me give you an example of the net imbalance in defense investment (equipment and facilities) between the U.S. and USSR between 1970 and 1978. A recent Rand report found that, over that decade, Soviet investment (measured in \$FY78) exceeded that of the United States by \$104 billion.[2] Adjusting for inflation to individual programs, that amount would have been sufficient to have bought the following complete U.S. programs: the B-1 bomber, the MX ICBM, the TRIDENT submarine program and the necessary missiles, more than 7000 M-1 tanks, the Infantry

[2] See A. Alexander, A. Becker, and W. Hoehn, "The Significance of Divergent U.S.-USSR Military Expenditure," Rand Note N-1000-AF, Santa Monica CA, February 1979.

Fighting Vehicle program, a short take-off and landing aircraft for intratheater transportation, and the entire F-14, F-15, F-16, F-18, and A-10 tactical aircraft programs (well over 4,000 front-line aircraft)! This is quite a remarkable sum, judging from this list. Worse, the Soviet momentum continues.

Unfortunately, in strategic forces, the picture is, relatively speaking, worse than it has been across the boards in the whole defense program. Figure Two shows strategic funding trends for the U.S. and Soviet Union over the 1970s. The cumulative Soviet investment in nuclear forces is three times that of the United States over the same period. In some sense, trends are worsening over this period. In FY1978, for example, the USSR spent 3.3 times as much on strategic forces as did the United States. A vigorous Soviet research and development base also promises new options for future Soviet deployments including new generations of land and sea-based missiles, strategic bomber designs, and so forth.

I think that these data speak for themselves. If you believe that the President should be able to say more than "stop" or "go" to the strategic forces; if you believe that he should have available the capabilities for carrying out less than all-out attacks in a controlled, discriminating, and effective way; or if you believe that the Soviets would be impressed by U.S. determination to retain this capability, then I will suggest that the solution to current problems in the forces is to bite the bullet and invest to modernize, in the most sensible and expeditious way. Unfortunately, there is no chance to get by on the cheap. We have indulged in a variety of rationalizations for Soviet behavior to



SOURCE: CIA-SR-81-10006 (U)
Jan. '81

Fig. 2 — Comparative U.S. - USSR strategic spending
(fiscal year 1971-1980)

explain their buildup in a benign way. We have tried to limit the threat through SALT. Now, I think we can agree, it is just a matter of writing the checks. This will be the case, regardless of the form our programs take.

In summary, we have before us a requirement to do something--and it has not quite been firmed up to this point--about the forces. Just to sprinkle a few drops of cold water over this, I would say that we will over the next decade run up against the traditional U.S. strategic budget dilemma. Over the past ten years, we have dedicated on average \$3 billion a year (in \$FY80) to strategic force investment for modernization of nuclear delivery vehicles. We have done some clever things with this money: but we have also made some mistakes, both of omission and of commission.

What I have said so far boils down to two basic points. First, I believe that it is imperative that the United States be ready to provide a "countervailing" capability that is adequate to check the capabilities that the Soviets have so assiduously developed over the past fifteen years. This does not mean that the United States sees any value in, or would willingly enter into, any sort of nuclear war, limited or not. It does mean that we should always be able, at the least, to indicate clearly and unambiguously to the USSR that they could not hope to attain, by the use of their nuclear forces, anything which to them seems to constitute meaningful gain.

Second, the United States must, regardless of other decisions and contingencies, commit itself to increased funding for the strategic forces. The most limited modernization program before us would require

real increases in spending. On the other hand, there are some fairly ambitious programs, all of which would cost a small fortune. The issue before us, of course, is what level of activity we think is appropriate to do the trick. In this choice we must be mindful of the fact, as a Brookings Institution report recently pointed out, that it could be as dangerous to overshoot the goal of defense as it could be to fall short. [3] Dollars spent on nuclear forces come at the expense of increased conventional military capabilities and domestic programs; and they come out of our taxpayers' hides.

If we buy just one nuclear program--MX or small ICBMs or B-1 or whatever--that eats up what we have been spending for a long time on the forces. So, for the 1980s, we are talking about a force effort that can be compared with the big strategic budgets we saw during the 1950s. Some people have even outlined packages of programs which could exceed the Eisenhower era budgets. This implies, naturally, not a 10 percent real growth in the strategic budget, nor a 50 percent one. We could be putting ourselves on the course to a doubling or tripling of the strategic program.

Without hazarding any guesses on how these matters can be sorted out, let me close with four rules we might remember as we plan our nuclear defense for the 1980s.

First, we probably cannot afford the luxury of experimentation or hedging like we used to. We must make a commitment to some programs, and go with them all out. This will be difficult, because they are

[3] Consult William W. Kaufmann, "The Defense Budget," in J. Peckman, ed., Setting National Priorities: the FY1982 Budget, The Brookings Institution, Washington DC, 1981.

individually very costly. Each represents a large individual block of funding that will occlude the total budget.

Second, we must keep in mind some of the less glamorous aspects of the forces as we plan. We must build the capabilities for ensuring survival, for easy maintainability, and so on, into the weapon. A nuclear weapon system is more than a warhead and a delivery system.

Third, we must remember that we are talking about integrated programs, not just hardware. Our equipment will only work as well as the plans and procedures that we devise tell it to.

Finally, we must remember that the nuclear forces are only a slice of the defense posture, and a small (if conspicuous) one at that. Nuclear war probably is more likely to come as a result of escalation from lower "levels" of fighting than it is likely to arrive as a full-blown bolt-from-the-blue. To the degree that superior conventional capabilities, and especially enhanced provisions for readiness and mobilization, can head off the former risk, we must be very careful as we divide up that defense pie we all hear about.

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